

1. Basics of Information Technology

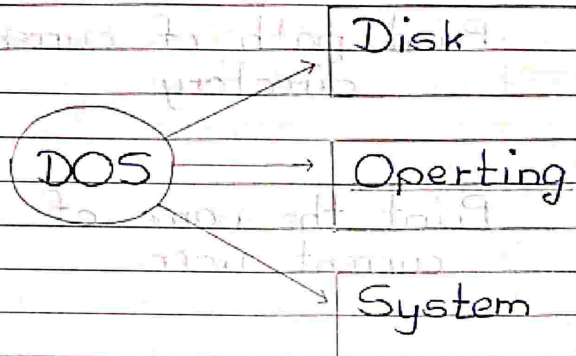
classmate

Date _____
Page _____

Exercise

Q.1 Complete the following activity.

1)



2) Tick the appropriate box.

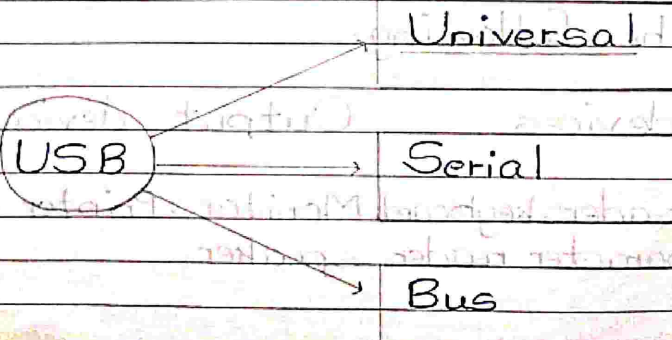
Internet is a network connecting millions of computer

Regional

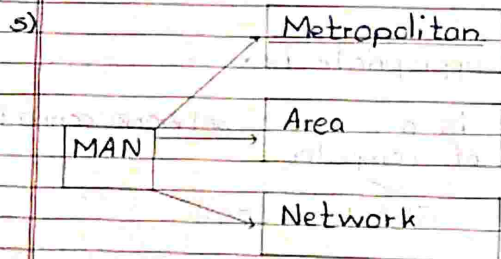
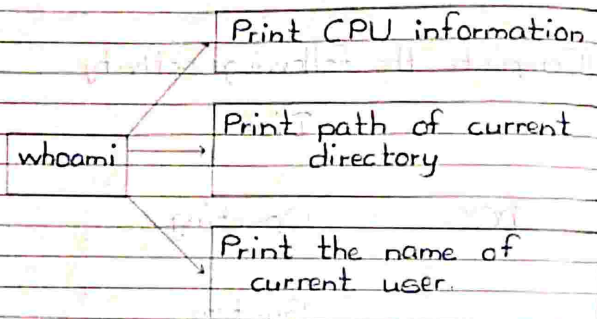
☒ Global

Local

3)



4) Tick the appropriate box.



Q.2 Divide the following.

Input devices	Output devices
Barcode reader, keyboard, Optical character reader.	Monitor, Printer, speaker.

Q.3 Multiple choice two correct answers.

- 1) The primary memory consist of RAM and ROM.
- 2) The network architectures which are widely used are Peer to peer and Client - server.

Q.4 Match the following.

'A'	Answers
1) LS	List of directory
2) FTP	To transfer files on internet
3) CD	change directory
4) DNS	Translates Network address

Q.8 Complete the Long forms.

- 1) LAN Local Area Network

2)

GUI

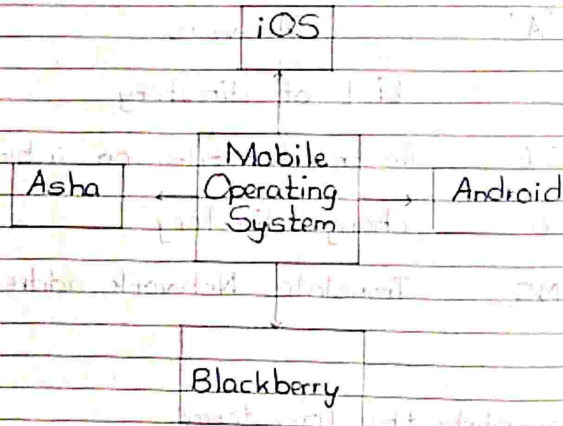
Graphical User Interface

3)

OSS

Open Source Software

Q.5 Complete the diagram



Q.6 Complete the following with Linux commands with their use

Commands

It's use.

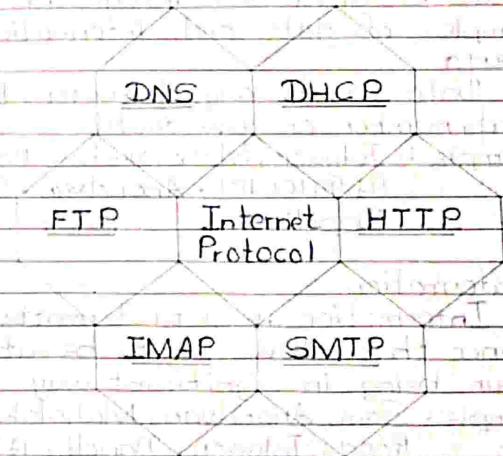
pwd

Print working directory

ls

Print list directory

Q.7 Complete the list of following protocols



Q.9. Identify the following activity

You are typing a letter using a computer and suddenly there is a power failure. Which type of memory does this activity deal?

→ This activity deal with Random Access Memory (RAM).

Q.10. Answer the following

1) What is data and information? Give examples of data and information.

→ i) Data

Data can be any character, text, word, number or raw facts.

Example: Jalgaon, Mahalakshmi Road, 9899100101, Anandvan, Sam, Dapoli.

ii) Information

Information is data formatted in a manner that allows it to be utilized by human being in significant way.

Example: Sam, Anandvan, Mahalakshmi Road, Jalgaon, Dapoli, 9899100101

2) Explain functional units of a computer system.

Functional units of Computer system

Input unit	Central Processing unit	Output unit
------------	-------------------------	-------------

1) Input unit - This unit helps users to enter data and command into a computer system.
Ex - keyboard, mouse, barcode reader, etc.

2) Central processing unit - This unit processes data and commands according to the instruction provided.

a) Arithmetic and Logic unit - Performs arithmetic operations and logical functions.

b) Control unit - Responsible for co-ordinating tasks between all components.

c) Memory unit - Stores data.

3) Output unit - This unit displays the processed data to users.

3) What is a storage unit? Explain types of primary memory storage.
→ Memory / storage unit - Storage unit is unit which stores the data.

• Types of primary memory

i) RAM

- i) It stands for Random Access Memory.
- ii) It is read/write memory.
- iii) It is main but temporary memory.
- iv) The information stored in this memory is lost as the power supply is switched off.
- v) It is volatile memory.

2) ROM

- i) It stands for Read Only memory.
- ii) It is permanent type of memory.
- iii) Content is not lost when power supply is switched off.
- iv) Content of ROM is decided by computer manufacturer.
- v) It is non-volatile memory.

4) Explain how Linux is different from Windows.

Linux

Windows

- | | |
|---|---|
| i) Linux is open source and free to use. | i) Windows is closed source and not free. |
| ii) Linux is more efficient in operations as compared to Windows. | ii) Windows is less efficient as compared to Linux. |
| iii) Linux is highly secure. | iii) Windows provides less security as compared to Linux. |

5) Write down difference between LAN, MAN and WAN.

→ I) LAN (Local Area Network)

- i) It covers smaller geographical area and are privately owned.
- ii) Usage areas limited to areas such as office building, home, hospital, schools, etc.
- iii) It covers short distance so error and noise is minimized.
- iv) It is easy to setup.
- v) Data transmits at very fast rate.
- vi) It is less expensive hardware and maintainance cost is low.

II) MAN (Metropolitan Area Network)

- i) It covers larger area than LAN and smaller area than WAN.
- ii) It connects 2 or more computers from same or different cities.
- iii) It serves as ISP (Internet Service Provider).
- iv) It is hard to design and maintain a MAN.
- v) Ex- Part of telephone company network that can provide high-speed DSL line to customer or cable TV network.

III) WAN (Wide Area Network)

- i) It covers large geographical Area.
- ii) It might be confined within bounds of state or country.
- iii) WAN could be connection of LAN connecting to other LAN's via telephone lines and radio waves.
- iv) It is high speed and expensive.
- v) Due to long distance transmission noise and error tends to more in WAN.

Saturday

3/10/20

Q.1 Fill in the blanks.

- 1) ROM is also called as 'non-volatile memory.'
- 2) 1024 Mega Bytes = 1 Giga Byte.
- 3) Windows Phone O.S. is developed by Microsoft for Mobile Phones.
- 4) Control unit is backbone of computers.
- 5) FOSS stands for Free Open Source Software.

Q.2 State true or false.

- 1) AI refers to data sets that are too large for traditional data processing.
- False
- 2) The first workable prototype of internet came in late 1960's. - True.
- 3) LAN is limited to areas such as an office building, home, schools, etc. - True.

4) ALU does basic mathematical calculations - True.

5) The word computer is derived from a Spanish word - False.

Q. 3 Choose one correct alternative.

- 1) The Linux is an open source, portable, multi user operating system.
- 2) The LAN covers a short distance, and so error and noise are minimized.
- 3) The AI is intelligence demonstrated by machines.
- 4) Web designer can develop interactive website using knowledge of HTML, PHP.
- 5) HTTP is an internet based protocol for sending and receiving web pages.

Q. 4 Answer the following.

- 1) Open source O.S for PC - Chrome, Linux

2) Popular IT Enabled services - Data centers, GIS mapping.

3) Types of protocol used for communication of internet - TCP/IP, HTTP

Q. 5 Match the pairs.

'A'	Answers	'B'
1) Android	5	1) Closed software
2) RAM	4	2) Application soft.
3) Windows	1	3) Career in I.T.
4) Game developer	3	4) Primary memory
		5) Google

3. Impressive Web Designing

13/10/20

Tuesday

Q Write Javascript code to print addition of two numbers. (Use $a = 20$, $b = 50$).

Ans.

```
<!DOCTYPE html>
<html>
<head><title>Addition of two numbers
</title></head>
<body>
<script language="javascript">
var a, b, c;
a = 20;
b = 50;
c = a + b;
document.write("Addition of numbers: " + c);
</script>
</body>
</html>
```

Q Write javascript code to accept the name from the user then welcome him/her along with the name.

Ans

```
<!DOCTYPE html>
<html>
<head>
<title>A Javascript Program</title>
</head>
<body>
<script language="javascript">
var b;
b = 10;
document.write(b)

var b;
b = prompt("Enter your name");
alert("Welcome to Javascript" + a);
</script>
</body>
</html>
```


Q Write a javascript program to print perimeter of rectangle. Accept length and width value from user.

→

```
<!DOCTYPE html>
<html>
<head><title>Perimeter of rectangle
</title></head>
<body bgcolor="orange">
<h1>Program to calculate Perimeter
of rectangle</h1>
<script language="javascript">
var l, b, a perimeter;
l= prompt("Enter length of rectangle");
b=prompt("Enter breadth of rectangle");
a perimeter = 2 * l + 2 * b;

document.write("<h1>Entered length:
</h1>" + l);
document.write("<h1>Entered breadth:
</h1>" + b);
document.write("<h1>Perimeter of
rectangle : </h1>" + perimeter);

</script>
</body></html>
```

Saturday

7/11/20

Q Write javascript code to print the following series using for loop.
11 12 13 14 20

→

```
<!doctype html>
<html><head>
<title> Iteration in Java </title>
</title></head>
<body>
<script language="javascript">
var num= 11;
while (num <= 20)
{
document.write(num+" ");
num ++
}

</script>
</body></html>
```

3. Impressive Web designing

Exercise

Q.1 Answer the following

- i) The data entry operator wants to insert
- Photograph
 - Write remarks about the photograph
 - Underline the heading

He will use:

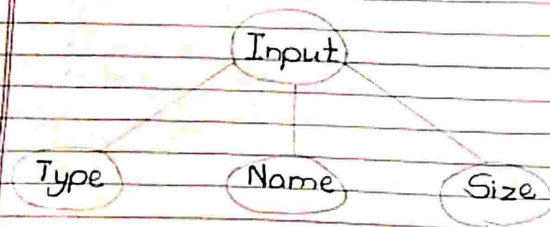
-
- ``
 - `<TextArea>`
 - `<U>`

2) Identify logical operators in Javascript

-
- `||`
 - `&&`

Q.2 Complete following activity.

i) State atleast 3 attributes of `<Input>`



2) Physical tags

i) `<sub>` for H_2O

ii) `<i>` for Hello

iii) `<sup>` for a^{12}

3) i) Paired tags :

- ``

ii) `<u>`

iii) `<i>`

iv) `<sup>`

v) ``

2) Empty/unpaired tags :

- `
`

ii) ``

iii) `
`

4) Relational operators :

- `<`

ii) `>`

iii) `<=`

iv) `>=`

v) `=`

vi) `!=`

- 5) Complete following program to display multiplication of 6.40 and 300.

```
<!DOCTYPE html><html>  
<head><title>Series</title></head>  
<body>
```

```
<script language="javascript">
```

```
var x = 6.40 ;
```

```
var y = 300 ;
```

```
document.write (x * y);
```

```
</script>
```

```
</body></html>
```

- Q.3 Find out error if any in following javascript code.

```
var length, breadth;  
length = 4.5;  
breadth = 6;  
area = 1/2 * length * breadth;  
document.write ("Area of triangle is"  
area);
```

→ Above code has error in last line.
The corrected line is
document.write ("Area of triangle is"
+ area);

- Q.4 Solve the following puzzle.

- A) Fill the blocks

- 1) Across

- The tag used to create table row.
- Tag to create a form.

- 2) Down

- The attribute used to specify the path of a linked document.
- The tag used to display horizontal ruled line.

B) Solve puzzle by finding words with the help of hint given below.

```

p z c b e p e s
r l o m v d l l
s k n s a t s t
y e f a l s e d
w q i s n a n g
v a r o s d y z
i l m e n c x i
  
```

- 1) Boolean value
- 2) Keyword used in conditional if statement
- 3) Built-In function in Javascript
- 4) Function to check given value is number or not.
- 5) Keyword used to declare variable.
- 6) Function used to evaluate given expression

-
- 1) false 2) else 3) confirm 4) isNaN
 - 5) var 6) eval

Q. 5 Trace output of following html code.

```

<!DOCTYPE html><html>
<head><title>Heading tags</title>
</head>
<body>
<h1 align=left>Information Technology
</h1>
  
```

<hr>

<h2 align=center>X.I Standard </h2>

<h3 align=right>Division </h3>

</body> </html>

Information Technology

X.I Standard

Division

Q. 8 Complete the following

Event	When occurs?
onClick	When user clicks an element
onKeyUp	When user releases key.
onMouseup	When user releases a mouse button over an element.

Q. 9 Write HTML Code for following table

Place	State	Maximum Temperature in °C
Wardha Akola	Maharashtra	47.5 46.84
Khajuraho Sagar	Madhya Pradesh	46.4 46.2

→

```

<!DOCTYPE html>
<html><head>
<title> Table</title></head>
<body>
<table border="1">
<tr bgcolor="pink">
<th> Place</th>
<th> State</th>
<th> Maximum Temperature in °C</th>
</tr>
<tr bgcolor="skyblue">
<td> Wardha</td>
<td rowspan="2"> Maharashtra</td>
<td> 47.5</td>
</tr>
<tr bgcolor="skyblue">
<td> Akola</td>
<td> 46.84</td>
</tr>
<tr bgcolor="skyblue">
<td> Khajuraho</td>
<td rowspan="2"> Madhya Pradesh</td>
<td> 46.4</td>
</tr>
<tr bgcolor="skyblue">
<td> Sagar</td>
<td> 46.2</td>
</tr>
</table>

```

```
<td> 46.4 </td> </tr>
```

```
<tr bgcolor="skyblue">
```

```
<td> Khajuraho </td>
```

```
<td rowspan="2"> Madhya Pradesh</td>
```

```
<td> 46.4 </td> </tr>
```

```
<tr bgcolor="skyblue">
```

```
<td> Sagar </td>
```

```
<td> 46.2 </td> </tr>
```

```
</table>
```

```
</body> </html>
```

Q 10 Multiple choice one correct answer.

- 1) The default method of submitting form data is Get.
- 2) In JavaScript the post increment operator is x++.

Q. 6 Discuss the following and answer the questions

- 1) A Jr. web designer wants to design a webpage to enter the employee name, address. He needs a button to clear the form content and submit the data.
- Write different controls he will use to create web page.
 - State the tags to be used for the controls

→

Enter employee name: `<input type="text" name="name">` `
`

Enter address: `<input type="text" name="address">` `
`

`<input type="reset" value="clear form">`

`<input type="submit" value="submit">`

- 2) A teacher has asked a student to create a web page to accept number and check whether it is between 50 to 100.

- List the variable, operators to be used.
- Specify the built-in function used and structure used

→

`var num;`

`if(num > 50 & & num < 100)`

Q. 7 Create webpages for the following:

- 1) Write program using HTML to design your class time table

→

```
<!DOCTYPE html><html>
<head><title>Time table</title>
</head>
<body>
<table border="1" bordercolor="red"
align="center" bgcolor="blue">
<caption><b>Time table</b></caption>
```

```
<tr>
```

```
<td>Time</td>
```

```
<td>Monday</td>
```

```
<td>Tuesday</td>
```

```
<td>Wednesday</td>
```

```
<td>Thursday</td>
```

```
<td>Friday</td>
```

```
<td>Saturday</td>
```

```
</tr>
```

```
<tr>11:00-11:40
```

```
<td>11:00-11:40</td>
```

```
<td>Chem</td>
```

```
<td>Phy</td>
```

```
<td>Chem</td>
```

```
<td>Phy</td>
```

```
<td>Chem</td>
```



```
<td>Phy </td>
</tr>
```

```
<tr>
<td>Maths </td>
<td>I T </td>
<td>I T </td>
<td>Chem </td>
<td>Maths </td>
<td>I T </td>
</tr>
```

```
<tr>
<td>Phy </td>
<td>Maths </td>
<td>Phy </td>
<td>Maths </td>
<td>Eng </td>
<td>Chem </td>
</tr>
```

```
<tr>
<td>Eng </td>
<td>Eng </td>
<td>Maths </td>
<td>Marathi </td>
<td>Maths </td>
<td>Marathi </td>
</tr>
```

```
</table>
</body>
</html>
```

- 2) Write program using HTML to create a form and submit it with personal data like name, address and standard.

→

```
<!DOCTYPE html> <html>
<head><title>Form </title></head>
<body>
```

```
<form name="f1">
Enter your name:<input type="text"
name="t1"><br>
Enter your standard:
<input type="radio" name="r1"> XIth
<input type="radio" name="r2"> XIIth
<br>
```

```
Enter your address:
<textarea name="t2"> </textarea>
<br>
```

```
<input type="submit" name="b1"
value="submit">
```

```
</form>
</body> </html>
```

- 3) Write a javascript program to accept two numbers and perform addition of two numbers by using mouseover event.

```
<!DOCTYPE html><html>
<head><title>Add</title></head>
<body>
<script language="javascript">
var a,b,c;
a=prompt("Enter any number");
b=prompt("Enter another number");
c=a+b;
```

```
document.write("Addition of two numbers  
is" + c)
```

```
<input type="button" value="button"  
onMouseOver="display(c)">
```

```
</script>
</body>
</html>
```

Tuesday

24/11/20

- Q1 Write javascript code to print perimeter of trapezium. accept required values from user.

(Hint : $pr = a + b + c + d$)

```
<!doctype html>
<head>
<title>Perimeter of Trapezium</title>
</head>
<body>
<h1>Perimeter of Trapezium</h1>
```

```
<script language="javascript">
var a,b,c,d,pr;
a=parseInt(prompt("Enter 1st base  
value:"));
b=parseInt(prompt("Enter 2nd base  
value:"));
c=parseInt(prompt("Enter 1st side  
value:"));
d=parseInt(prompt("Enter 2nd side  
value:"));
pr=a+b+c+d;
document.write("Perimeter of Trapezium:"  
+pr);
</script>
</body>
</html>
```

First Semester Exam

Friday

11/12/20

Q-2 State true or false.

- 1) The GET value of method attribute used to hide data on address bar.
→ False

Q-1 Fill in the blanks.

- 1) _____ is the backbone of computers.
→ Control unit
- 2) _____ tag is used to display text as deleted text.
→
- 3) An _____ defines property for an element.
→ attribute
- 4) _____ is a built-in function used in convert value into integer.
→ parseInt()
- 5) Touch screen is the example of _____ device.
→ input

Q-2 State true or false.

- 1) The GET value of method attribute used to hide data on address bar.
→ False
- 2) LAN covers larger geographical area than MAN.
→ False
- 3) String data type used to store text in JavaScript.
→ True
- 4) tag is a container tag.
→ False

Q-3 Select one correct alternative.

- 1) _____ can be any character, text, word, number or raw fact.
→ d) Data
- 2) Following is valid singular tag used:
→ b)

- 3) _____ software is used by proprietary and has closely guarded code.
→ a) closed source

4) _____ attribute of `<th>` and `<td>` tag is used to merge number of cells into single cell in a same row of table

→ a) colspan

5) _____ is an address of a web page on internet

→ c) URL

6) _____ attribute is used to specify the maximum no. of characters allowed in `<textarea>` tag.

→ c) maxlength

7) The first two versions of the _____ operating system introduced in 1985 and 1985 respectively.

→ a) Windows

8) _____ keyword used to declare variables in JavaScript.

→ b) var

9) The _____ unit reproduces data formatted by computer for user's benefit.

→ c) Output

10) _____ function in JavaScript is used to convert given string into lower case alphabet.

→ c) toLowerCase()

Q.4 Select two correct alternatives.

1) Following are relational operators used to check conditions or comparison of operands.

→ a) `<=`
d) `>=`

2) Following are types of network based on geographical area they cover.

→ a) LAN
e) MAN

3) Following are attributes used to make default selection in Radio button, Checkbox and Drop Down List.

→ b) Selected
c) Checked

4) Following are some IT enabled services.

→ a) Call centers
c) GIS mapping

5) JavaScript provides following data types to store and use different types of values.

→ a) Number
b) Boolean

Q.5 Select three correct alternatives

1) Following are basic components of computer

- a) Input unit
c) CPU
e) Output unit

2) Correct method to declare variable

- a) var a;
b) var a, b;
d) var a, b, c;

Q.6 Match the following.

Column A	Answers
1) onKeyUp	b) occurs when a key is pressed.
2) <h3>	c) one of heading level tag
3) Null	f) no value at all
4) ++i	a) Pre-increment

Q.7 Answer the following.

1) What is variable? Give rules to declare variables.

→ Variable - It is a basic unit of storage in a Javascript program.

Rules to declare variables:

- They must start with alphabet.
- Variable name in javascript is limited up to 225 characters.
- Uppercase and lowercase are distinct. This means that variable 'sum' is not same as 'SUM'.
- It should not contain blank space or special symbol except underscore.
- Standard keyword are not allowed as variable name. e.g. document, while.

2) Give recent trends in IT.

-
- Green computing
 - Internet of Things (IoT)
 - Cloud computing
 - Data analytics
 - Artificial Intelligence (AI)
 - Machine Learning (ML)

vii) Big Data
viii) Blockchain

3) Describe following functions-

a) parseFloat()

→ This function is used to parse a string and convert it into floating point representation.

b) prompt()

→ This function is used when you want input value from user at the time of program execution.

4) Give features of JavaScript

→

- i) It perform input data validation.
- ii) It is light weight scripting language.
- iii) It is case sensitive language.
- iv) It make web pages more interactive.
- v) It can handle data and time effectively.

5) Explain <input> tag & its attributes.

→ It is used to make form elements like textbox, radiobutton, checkbox, etc

Attributes :

- i) type
- ii) name
- iii) maxlength
- iv) size
- v) checked
- vi) value

Q.8 Solve program

- i) Design a Feedback form in HTML5 that accepts name, address, city, zip code, e-mail address and comment from user. Buttons should be provided for clearing and submitting the form.

→

```
<!doctype html>
<html><head>
<title>Feedback form </title>
</head>
<body>
<form name = "f1">
Name : <input type = "text" name = "t1">
<br>
```

```
Address : <textarea name = "ta1" row = "5"
cols = "20">
</textarea> <br>
```


City :

```
<select name="ct">
<option value="Khed">Khed
<option value="Chiplun">Chiplun
<option value="Dapoli">Dapoli
<option value="Guhagar">Guhagar
</select><br>
```

Zip code : <input type="text" name="t2">

E-mail : <input type="text" name="t3">

Comment : <textarea name="ta2"
row="4" cols="12">


```
<input type="submit" value="submit"
value="submit">
<input type="reset" name="reset"
value="clear">
```

```
</form>
</body>
</html>
```

2) Write Javascript program to print perimeter of trapezium, accept required values from user (Hint: $p = a + b + c + d$)

```
<!doctype html>
<head>
<title>Perimeter of Trapezium</title>
</head>
<body>
<h1>Perimeter of Trapezium Program</h1>
<script language="javascript">
var a, b, c, d, p;
a=parseInt(prompt("Enter 1st base
value:"));
b=parseInt(prompt("Enter 2nd base
value:"));
c=parseInt(prompt("Enter 1st side
value:"));
d=parseInt(prompt("Enter 2nd side
value:"));
p= a + b + c + d;
```

```
document.write("Perimeter of Trapezium:"
+p);
```

```
</script>
</body>
</html>
```